

# Nuttle Involved in Pharmaceutical Research at SWOSU

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Jacinca Nuttle (center), a Southwestern Oklahoma State University senior chemistry major from McPherson (KS), was recently awarded a NASA scholarship for her cancer research under the direction of Dr. Jason Johnson (left), a professor of biochemistry in the SWOSU Department of Chemistry and Physics. Also pictured is NASA grant principle investigator Madeline Baugher.

Jacinca Nuttle, a Southwestern Oklahoma State University senior chemistry major from McPherson (KS), was recently awarded a NASA scholarship for her cancer research under the direction of Dr. Jason Johnson.

Johnson is a professor of biochemistry in the SWOSU Department of Chemistry and Physics on the Weatherford campus.

Nuttle is researching the functions of CTP Synthetase, an enzyme necessary to the creation of one of the four building blocks of nucleic acids. Because large concentrations of nucleic acids are necessary to support rapid cell division (as would accompany cancerous or parasitic growth), the enzyme is considered a primary target for anti-cancer and anti-parasitic drugs. The research focuses on determining how the enzyme is regulated in the cell.

Johnson said such core knowledge of the enzyme's functionality is a prerequisite for any rationale pharmaceutical design, particularly for drugs that might mimic the enzyme's normal regulators.

SWOSU is a member of the NASA Oklahoma Space Grant Consortium that provides scholarship funds for students majoring in STEM disciplines at member institutions. STEM disciplines are science, technology, engineering and math.

SWOSU matches these funds with an equivalent amount of its own. All scholarship awardees are required to volunteer 10 hours of their time to either the Stafford Air and Space Museum located in Weatherford or another appropriate community service organization.

The grant principle investigator is Madeline Baugher, faculty member in the SWOSU Department of Entrepreneurship and Computer Systems. Students may submit research proposals for a spring funding cycle until January 31, 2009. A description of the program and an application may be found at <http://www.swosu.edu/academics/ace/compsci/nasa/grant.asp>.